

REMARKS

Applicants respectfully request reconsideration and allowance of the above-identified patent application. By this paper, claims 1-34 remain pending by amending claim 13 and withdrawing from consideration claims 35-40.^{1,2}

Initially, Applicants and Applicants' Attorney express appreciation to the Examiner for the courtesies extended during the telephonic interview recently held on March 19, 2008. The foregoing amendments and following arguments are consistent with those presented and discussed during the interview.

Applicants also note with appreciation the Examiner's consideration of the documents submitted in the Information Disclosure Statement (IDS) filed April 1, 2004.

The Office action rejects the pending independent claims 1, 13, and 24 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,574,233 to Fuller, Jr. et al. ("*Fuller*") in view of U.S. Patent Application Publication No. 2004/0025020 to Yoshimura et al. ("*Yoshimura*") and further in view of U.S. Patent Application Publication No. 2001/0018698 to Uchino et al. ("*Uchino*"). The pending dependent claims are also rejected by the Office under 35 U.S.C. § 103(a) as allegedly being unpatentable over the combination of *Fuller*, *Yoshimura*, *Uchino* and further in view of one or more of the following: U.S. Patent Application Publication No. 2004/0260778 to Banister et al. ("*Banister*") and/or U.S. Patent Application Publication No. 2003/0115259 to Lakshmi Narayanan ("*Narayanan*").³ Applicants respectfully traverse these grounds of rejection.

¹ Note that claims 35-40 were withdrawn in anticipation of a Restriction Requirement from the Office. More specifically, during the above noted Examiner interview, it was alleged that claim 35 was drawn to an "independent and distinct" invention from that of claims 1, 13, and 24. Based on this belief, the Examiner noted that a Restriction would be issued in the next communication from the Office. Accordingly, in order to expedite prosecution of this Application, Applicants have withdrawn from consideration claims 35-40. Applicants respectfully note, however, that such withdrawal of this subject matter is strictly in anticipation of the issuance of a Restriction Requirement and should not be interpreted as Applicants' acquiescence to any of the allegations about the expected restriction and/or patentability of these claims as alleged in the Office action.

² Also note that claim 13 was amended to more explicitly recite features Applicants believe were already expressly or inherently found in the originally filed claim. Applicants further note that such amendments were made in accordance with the noted Examiner interview, in which the Examiner expressed concerns over the clarity of these features; and therefore, Applicants amended the claims to address such concerns. As such, Applicants respectfully submit that if the Office rejects the claims in the next communication received based on newly cited art, the next action should not be made final since such mere clarifying amendments could not have possibly necessitated any new such grounds of rejection.

³ Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

As discussed during the interview, Applicants' invention generally relates to messaging board systems. More specifically, embodiments provide mechanisms to extend the data properties and functionality of a legacy messaging board protocol without having to modify it in order to support clients with only legacy protocol capabilities. In typical messaging board systems, in order to post and download messages a client and a server need to communicate over the network through a specific protocol. Most of these protocols, however, are unsecured with no way of authenticating a user and/or they offer limited security options. With no way secure connection or ability to authenticate a user, there is no way protect the data from being tampered with; and therefore, no reliability in message content and/or the identity or status of an author. Further, messaging board protocols are static in that data properties associated with the posting cannot easily be updated or dynamic changed.

Clearly one solution to overcoming the deficiencies of current messaging board protocols would be to modify the protocol itself. There are, however, several problems associated with such a solution. For example, such modification of the protocol may require most if not all users to update their client software. Accordingly, users with legacy clients that implement the legacy protocol would not be supported with the change in data properties and functionalities. Further, there are instances where the server or client software implementation of the protocol cannot be modified in an elegant way since design choices preclude simple solutions to new problems.

Embodiments overcome the above deficiencies of message board systems by extending the functionality and data properties offered by a legacy protocol (such as NNTP), without having to modify or otherwise break support for the legacy protocol itself. More specifically, embodiments create a side channel to handle features not supported by the message board protocol. Such side channel provides a secure connection to the posting server for sending extended data, which is then correlated or otherwise linked to the legacy data sent over the unsecured legacy channel. As will be appreciated, the inclusion of hash values, digital signatures, metadata, and other information sent over the secure side channel extends not only the security/authentication functionality of the legacy protocol but also provides many other advantageous features or data properties such as voting capabilities, ratings of posts, linking of subject matters, collapsing related messages, etc.

Claim 13 is directed towards *some* of the embodiments mentioned above; and more specifically provides a method of extending the functionality and data properties offered by the

legacy protocol so as to maintain support for clients with only legacy capabilities. The method comprises: (1) posting legacy data, including a main body of a message, on a messaging board over an unsecured legacy channel using a legacy protocol that supports legacy clients; (2) establishing a secure side channel when exchanging extended data for supporting data properties and functionality not offered by the legacy protocol; (3) creating a client hash value by hashing at least a portion of the legacy data; (4) sending over the secure side channel extended data that includes metadata for defining extended data properties and the client hash value; and (5) correlating the legacy data sent on the unsecured legacy channel with the extended data sent over the secure side channel to ensure that the legacy data over the unsecured legacy channel has not been altered.

Applicants respectfully submit that the cited *Fuller*, *Yoshimura*, *Uchino*, *Banister*, and *Narayanan* references do not render claim 13 unpatentable for at least the reason that the cited references do not disclose, suggest, or reasonably support a teaching of each and every element of Applicants' claimed invention.⁴ For example, the references—taken individually or as a

⁴"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131. That is, "for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly." MPEP § 706.02. Applicant also note that "[i]n determining that quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure.'" MPEP § 2121.01. In other words, a cited reference must be enabled with respect to each claim limitation.

Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court in *Graham v. John Deere Co.* are as follows: (1) determine the scope and content of the prior art; (2) ascertain the differences between the claimed invention and the prior art; and (3) resolve the level of ordinary skill in the pertinent art. Once the *Graham* factual inquiries are resolved, in order to establish a *prima facie* case of obviousness the Office bears the burden of proving that the claimed invention would have been obvious to one of ordinary skill in the art at the time of the invention after consideration of all the facts. When considering obviousness with a combination of known elements, the operative question is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." (See *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396).

Further, The Supreme Court in *KSR* noted the necessity in an "explicit" analysis supporting an obviousness rejection by quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), which states that "'rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" In other words, to reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries and then articulate the following: (1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference; (2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately; (3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and (4) whatever additional findings based on the *Graham* factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a

whole—do not disclose, suggest, or reasonably support a “correlate[ion of] the legacy data sent on the unsecured legacy channel with the extended data sent over the secure side channel to ensure that the legacy data over the unsecured legacy channel has not been altered, as recited, *inter alia*, in claim 13.”⁵

As discussed and generally agreed to during the Examiner interview, the Office relies mainly on *Fuller* as allegedly disclosing all the features in claim 13—with the exception of the hashing feature and message board protocol for which the Office relies on *Yoshimura* and *Uchino*, respectfully, as allegedly disclosing these elements.⁶ *Fuller* discloses an arrangement for redefining an interface while maintaining backwards compatibility. More specifically, *Fuller* provides a mechanism that allows a device to communicate over a bus with either a legacy device or an extended device using an appropriate interface. In other words, col. 2, ll. 54-64 of *Fuller* describe the system as providing a new interface definition by superimposing or overlaying it on a legacy bus to form an extended bus. Physically, the legacy bus and the extended bus are one and the same bus. Functionally, however, the bus supports both

conclusion of obviousness. If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art.

In short, in order to establish a *prima facie* case of obviousness, “all words in a claim must be considered in judging the patentability of that claim against the prior art.” MPEP § 2143 (citing *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)). Further, *Graham* requires the showing of a rationale to support a conclusion of obviousness directed at the claims by a finding that one of ordinary skill in the art could have combined the elements in the manner suggested (e.g., substituting one known element for another), and the results of the combination or substitution would have been predictable. Further, the M.P.E.P. §2141.02 states that the cited references must be considered as a whole, including those sections that “teach away” from the claimed invention. (Citation omitted).

⁵ Claim 13 was chosen for discussing the distinctive features claimed over the cited art of record since during the Examiner interview the Examiner considered the claim to be the broadest representation of embodiments herein described.

⁶ Applicants respectfully note that while not formally argued at this time, the Office’s explanation for combining references teachings lacks the articulate reasoning necessary to support a legal conclusion of obviousness noted in the necessary findings above. For example, the Office action combines backwards compatibility interface of *Fuller* with *Uchino* to allegedly disclose a message board for posting messages of Applicants’ claimed invention. The Office’s then states that the motivation for the combination is merely “in order to have a forum for discussion.” As noted herein, *Fuller* describes simple and direct communication between two devices, and in no way applies to messaging boards for posting messages. As such, Applicants respectfully submit that more findings are necessary than those provided by the Office and a more explicit and detailed analysis is also necessary in order to support this combination. Similarly, Applicants also respectfully note uncertainty in why *Fuller* would use the hashing mechanism of *Yoshimura* for “ensuring that data transmitted over unsecure channel is encrypted,” since *Fuller* does not mention any need for such security feature. As such, if the Office maintains this and other combinations in any subsequent actions, Applicants respectfully request the Office’s adherence to the “explicit” analysis needed to support a legal conclusion of obviousness, keeping in mind of course the other standards noted above. In other words, Applicants respectfully request that in all future correspondence the Office provide a more appropriate line of reasoning for combining references as required by law in order for Applicants to have a fair opportunity to appropriately respond to such allegations.

definitions. This allows the old devices that use the legacy interface to remain unchanged, thus preserving backwards compatibility while allowing the addition of extended devices to its system.

In col. 3, ll. 14-32 of *Fuller*, it describes in more explicit detail how such backwards compatibility for devices that use different interfaces is achieved. In general a device "switches" between legacy mode and extended mode when communicating with the other devices with the corresponding interface. Note that one device only communicates with the other device in the appropriate supported mode, but does not communicate with the same device in both modes. In fact, *Fuller* clearly shows in Fig. 1 a separation between legacy devices and extended devices and also makes clear that when in extended mode, the legacy interface remains inactive during that bus transaction, and vice versa. Since *Fuller* does not communicate with a single device in both legacy and extended modes, *Fuller* cannot possibly disclose or suggest sending legacy data over a legacy protocol and linking such data with additional data sent over the extended mode. In other words, *Fuller* would have to disclose or suggest sending legacy data and extended data to the same device using the two separate interfaces in order to even suggest "correlating the legacy data sent on the unsecured legacy channel with the extended data sent over the secure side channel to ensure that the legacy data over the unsecured legacy channel has not been altered, as recited, *inter alia*, in claim 13. In fact, Applicants respectfully submit that since *Fuller* clearly shows that data is sent to one device using a legacy interface and then to an separate extended device (not in any way related to the legacy device) using the extended mode, *Fuller* actually "teaches away" from Applicants' claimed invention that links or otherwise correlates data sent over an unsecured legacy and secured side channel. As such, *Fuller* does not render claim 13 unpatentable.

As mentioned above, in noting some of the deficiencies of *Fuller* the Office relies on the teachings *Yoshimura* and *Uchino* for allegedly supporting the hashing feature and message board protocol as described in claim 13. These cited references, however, cannot possibly rectify the deficiencies of *Fuller* noted above with regard to the correlation of data sent over two separate channels. Similarly, the Office relies on *Banister* and *Narayanan* as allegedly disclosing features recited in the dependent claims; and therefore, they too suffer from the same deficiencies of *Fuller*, *Yoshimura*, and *Uchino*. As such, Applicants respectfully submit that the combination of *Fuller*, *Yoshimura*, *Uchino*, *Banister*, and *Narayanan* does not render claim 13 unpatentable for

at least the reason that the combination does not disclose, suggest, or reasonably support each and every element of Applicants' claim 13.

Claims 1 and 24 recite methods with elements similar to those described above with regard to claim 13. As such, these claims are patentably distinct over the cited art of record for at least those reasons stated above with regard to claim 13.

Based on at least the foregoing reasons, Applicants respectfully submit that the cited prior art fails to anticipate or otherwise make obvious Applicants' invention as claimed for example, in independent claims 1, 13, and 24. Applicants note for the record that the remarks above render the remaining rejections of record for the independent and dependent claims moot, and thus addressing individual rejections or assertions with respect to the teachings of the cited art is unnecessary at the present time, but may be undertaken in the future if necessary or desirable and Applicants reserve the right to do so.

All objections and rejections having been addressed, Applicants respectfully submit that the present application is in condition for allowance, and notice to this effect is earnestly solicited. Should any questions arise in conjunction with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at 1-801-533-9800.

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Respectfully Submitted,

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